Software Product Description

PRODUCT NAME: GIGAswitch Software Version 1.0 **SPD 44.06.00**

DESCRIPTION

The GIGAswitch Software is dedicated firmware that runs on the GIGAswitch hardware platform and associated FDDI linecard. The linecard is designed to comply with ANSI X3T9 FDDI standard. It allows customers to connect any network device or system that is equipped with an ANSI standard FDDI interface to the GIGAswitch system.

The GIGAswitch platform is completely self contained: the only software that it requires to operate is its firmware. (It does not require a separate operating system.) The components within the platform that use firmware are the switch control processor module, the clock module and the power system controller. These components are referred to, collectively, as the GIGAswitch kernel. The GIGAswitch FDDI linecard also uses firmware.

The GIGAswitch hardware is shipped from the factory with the firmware preloaded. The firmware resides in electronically alterable memory within the various components of the platform and can be updated via downline load procedures. Firmware is maintained in nonvolatile memory even during power-off states.

Major functions of the GIGAswitch kernel firmware are:

- Performs power up initialization and configuration
- Provides console management through an out-of-band RS-232 port
- Performs self tests upon power up (and when requested)
- Executes IEEE 802.1D spanning tree algorithm
- Builds, maintains, and distributes bridge forwarding tables to the linecards
- Collects and updates system counters
- Provides an SNMP agent
- Monitors temperature and adjusts fan speed
- Provides system synchronization
- Stores nonvolatile management parameters
- Communicates filtering directives to the FDDI linecards

Major functions of the GIGAswitch FDDI linecard firmware are:

- Performs FDDI Station Management based on the ANSI X3T9 Standard, SMT Version 7.2
- Responds to kernel commands regarding filtering
- Supports Full Duplex FDDI (FDX) operation for point-to-point connections between the GIGAswitch system and systems with Digital or Digital-licensed FDDI interfaces with FDX capability.

STANDARDS SUPPORTED

The GIGAswitch system and the GIGAswitch software support the following standards:

- ANSI X3T9
- IEEE 802.1D
- SNMP
- MIB II (RFC1213)
- Bridge MIB (RFC1286)
- FDDI MIB (RFC1285)

INSTALLATION

The GIGAswitch system is shipped from the factory with the GIGAswitch software preloaded. The firmware resides in nonvolatile, electronically alterable memory within the GIGAswitch hardware and can be updated when new versions of the code are issued.

Updates to the firmware are customer-installable and can be installed in either of two ways:

- Downline load initiated through DECndu Plus uses TFTP to move images to the GIGAswitch system. DECndu Plus is available for use on OpenVMS VAX (SPD 47.50.00), ULTRIX VAX (SPD 47.51.00), and MS–DOS® (SPD 47.52.00).

- Downline load initiated through SNMP commands from a network management station uses either TFTP or Digital's MOP protocol to move images to the GIGAswitch system.

SOFTWARE REQUIREMENTS

The Simple Network Management Protocol (SNMP) MIB is provided for the GIGAswitch system to allow in-band management with any SNMP-compliant network management application, such as POLYCENTER Framework (previously DECmcc Director), POLYCENTER SNMP Manager 300 (previously named DECmcc Management Station for ULTRIX), or a third-party SNMP application.

The network management station is required to have the following MIB extensions:

- GIGAswitch MIB Version 1.0
- MIB-II (RFC1213)
- FDDI MIB (RFC1285)
- Bridge MIB (RFC1286)
- DEC vendor MIB (Elanext Version 2.7)

The GIGAswitch Software Version 1.0 is made up of the following firmware modules and versions:

Kernel:

- Clock firmware Version 1.0
- PSC firmware Version 1.0
- SCP firmware Version 1.0

FDDI Linecard:

- FGL firmware Version 1.0

HARDWARE REQUIREMENTS

The DEFGA-AA/-AB/-BA/-BB platform is required to run the GIGAswitch kernel firmware. The DEFGL-AA linecard is required to run the GIGAswitch FDDI linecard firmware. The GIGAswitch Software does not run on any other hardware platform.

Devices connecting to the GIGAswitch FDDI linecard must comply with the ANSI X3T9 FDDI standard.

ORDERING INFORMATION

The GIGAswitch system is shipped from the factory with the GIGAswitch software preloaded. This software is not available separately.

SOFTWARE LICENSING

A GIGAswitch Kernel Software License is required for each platform and a GIGAswitch FDDI Linecard Software license is required for each linecard. These licenses are included with the hardware. These licenses cannot be purchased as independent line items.

This software is furnished under the licensing provisions of Digital Equipment Corporation's Standard Terms and Conditions. For more information about Digital's licensing terms and policies, contact your local Digital office.

SOFTWARE WARRANTY

Warranty of this software product is provided with the purchase of a license for this product as defined in the Software Warranty Addendum of this SPD.